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Western Meat Animal Surplus To Continue To Shrink

THE FLOW of meat animals from western farms and ranches to the feed lots and slaughterhouses of the East has ebbed steadily with the rapid growth of the western meat-packing industry. Before many years pass, that flow is likely to be down to a trickle.

The prospect that an increasing share of the livestock raised in the West will be slaughtered and consumed in the West rests mainly on the population outlook. Over the last 25 years, the population of the 11 western-most States plus Texas has grown more than 3 times as fast as in the rest of the country. The rate of increase in the West is expected to continue greater than in the other 36 States. By 1955, around 30 million persons may be living in the West compared with the 27.3 million in mid-1949.

More People, More Meat

If consumption of meat per person in Western States stays at about the same level as in recent years, a population of 30 million in 1955 would consume about 1,200,000,000 more pounds of meat animals than in recent years. This would be equal to 800,000 cattle, 375,000 calves, 1,100,000 hogs, and 1,000,000 lambs. Unless there is a considerable increase in shipments of dressed meat into the West from other areas, these animals would be slaughtered in western packing plants.

The inroads being made by western packers on the slaughter animal supplies of Western States is brought out in the accompanying chart. The area to the west of each of the "lines of east-west movement" on the three maps is the approximate area in which net marketings of livestock equal the slaughter of western packing plants for the particular period shown. This does not mean that all meat animals raised to the west of these lines are slaughtered in the West. Actually, of course, shipments of livestock cross these lines from considerable distances on either side.

This is the second of two articles on past trends and future prospects for the trade in western slaughter livestock. The articles are based on research done under the Research and Marketing Act by the agricultural experiment stations of the Western States and BAE.

Hog Shortage Increases

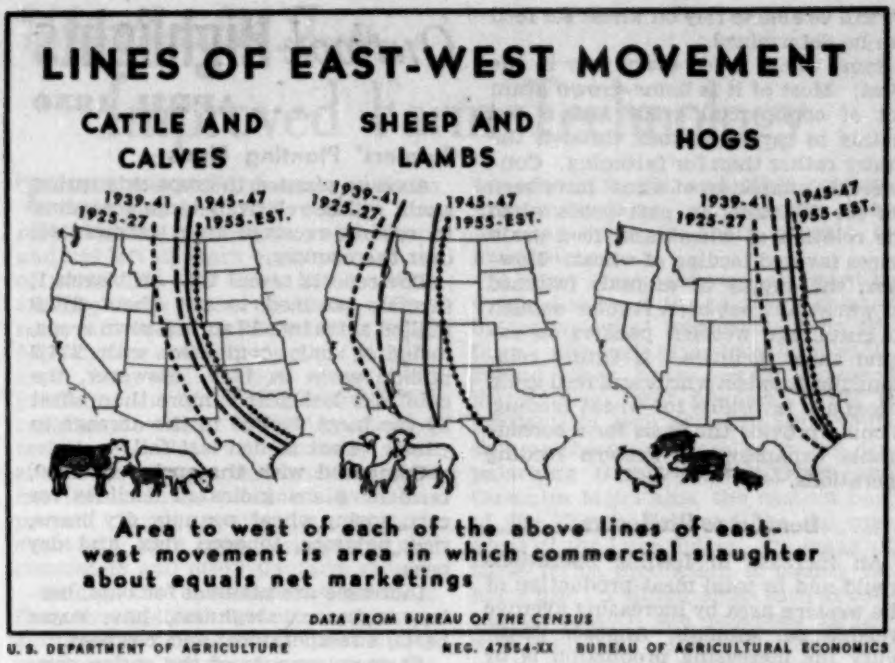
The increase in the area needed to supply slaughter requirements of western packers shows how rapidly the surpluses of cattle and sheep in the West have been reduced. The West has never produced enough hogs to meet slaughter needs of western packers. As the population of the area has grown, western packers have drawn increasingly on States to the east for the hogs they need.

The eastward shift of the lines of east-west movement apparently will continue, in which case surpluses of cattle and sheep available for shipment east will diminish. Unless present trends are reversed eastern packers will have to depend more and more on other areas for their slaughter animal supplies.

Require Less Finish

The future growth of the packing industry in the West will be affected by the kind and quality of meat demanded by western consumers. In the past, this demand has been satisfied by meat with less "finish" than in other parts of the country. Most of the cattle, calves, sheep, and lambs slaughtered in the West have been "grass fat."

If western consumers continue to be satisfied with meat with less finish than is usual in other parts of the country, future slaughter needs of western



packers can be largely met with grass-fat cattle and sheep from western ranges. If demand for meat with a high finish increases, however, the ability of western packers to meet this demand will depend largely on the efficiency of western farmers in producing fed livestock and on future relationships between freight rates for live animals and dressed meat moved east or west.

Depends on Feed Supplies

The ability of western farmers and ranchers to increase supplies of fed cattle and sheep in the future will depend directly on their ability to increase feed supplies. The opportunity to increase feed production, in turn, will depend largely on future irrigation programs or on range improvement and on the extent to which wheat can be used for feed.

In the past, commercial feeding in the West, generally, has been confined to irrigated farming areas where supplies of grain, hay, and sugar beet by-products are adequate. Much of the cattle-feeding business in the future also will center in irrigated areas.

On farms put under irrigation in the future, livestock feeding will have to compete with daily products, fruits, vegetables, and other cash crops. Its success will depend on how profitable it is compared with other enterprises. However, some increase in feeding is likely in any case. Most irrigated farms produce at least some feed crops in the rotation. Furthermore, any increase in the dairy industry probably would add to supplies of slaughter livestock.

Wheat a Possibility

The opportunity for increasing feed supplies available to western farmers by using wheat for feed is promising. Wheat is as good or better than the feed grains for most types of feeding operations. A recent study (see AGRICULTURAL SITUATION, February 1950) showed that growing wheat for feed is a promising use for excess acreage. However, more research is needed before the extent to which western farm-

ers will be able to rely on wheat for feed can be determined.

Some wheat is fed every year in the West. Most of it is home-grown grain not of commercial grade and is fed mainly to carry livestock through the winter rather than for fattening. Considerable quantities of wheat have been fed for fattening in past years when the relation of wheat and feed grain prices favored feeding of wheat. However, the supply of animals fattened on wheat has not been regular enough to encourage western packers to expand their facilities. If future relationships between wheat and feed grain prices are favorable for wheat feeding, it could provide the basis for a considerable expansion in western feeding operations.

Benefits to Producers

An increase in feeding operations would add to total meat production of the western area by increasing average weights per animal. Another possibility for increasing production is by increasing the carrying capacity of western irrigated pastures and ranges through better management. Material gains in this direction already have been made, particularly in the case of irrigated pastures.

The increased volume of packing in the West will benefit western livestock producers. It will mean new and expanded markets. It also will mean that western producers will be able to sell a larger share of the meat animals nearer the home farm or ranch with a resulting decline in transportation and other marketing costs. If livestock feeding grows to any extent, it also will cause considerable changes in the operations of many farms.

Effects Far Reaching

The effects of the changes will extend beyond the Western States. As the number of western cattle and sheep available to eastern markets is reduced, livestock production in other parts of the country may be stimulated. Over the long run, this could result in some important changes in the way farm land in the United States is used.

Harold Abel
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Outlook Highlights

. . . APRIL 1950

Farmers' Planting Plans

Acreage planted to crops this spring again will be relatively large according to reports received from farmers all over the country.

The reports reveal that on March 1, farmers planned to put about 277.9 million acres into 17 spring-sown crops, including hay, compared with 274.2 million acres in 1949. However, the gain over last year is more than offset by the large decline in the acreage in winter wheat seeded last fall.

Compared with the spring of 1949, farmers' plans indicated declines for corn, spring wheat, peanuts, dry beans, rice, potatoes, tobacco, flax, and dry peas.

Increases are planned for oats, barley, soybeans, sorghums, hay, sugar beets, sweetpotatoes, and cowpeas.

Farmers' reports of the spring-sowing plans plus allowances for crops for which no information is now available indicate that principal crops planted or grown in 1950 may total nearly 359 million acres. This would be about 10½ million less than in 1949 and less than in 1948, 1944, and 1943 but larger than in any other year since 1937. Largest acreages planted in this country occurred from 1930 to 1933.

Here is the picture for individual crops:

Corn: Planted acreage is expected to be 82,765,000, about 6 percent below last year, and well below the average of nearly 90 million acres. All of the decrease is due to acreage allotments which called for a reduction of nearly 20 percent below 1949 planted acreage in the commercial area, or for the total national acreage a reduction of 13 percent from 1949 plantings. Increases over last year are expected in most States where allotments are not in effect.

If prospective plantings are carried out and yields per acre for each State equal the 1944–48 average, the 1950 crop would be around 2.8 billion bushels, about 17 percent below 1949.

(Continued on p. 14)

Who Benefits From

Improved Farm Technology

TECHNOLOGICAL progress on farms over the last half century has revolutionized American agriculture and has left its mark upon every phase of public life. In total, the resulting changes have been beneficial. They have contributed much to better living for farmers and city dwellers in general. But, some serious adjustment problems also have arisen from this rapid improvement in farm production techniques. Not all farmers have shared equally in the benefits. And not infrequently, the gains from improved farm production methods eventually have been passed on to city consumers and other nonfarm groups.

Among the achievements resulting from the application of science to agriculture, the most dramatic and widely recognized is the rapid increase in the physical productivity of agriculture. Total output from our farm plant in 1949 was twice as large as at the turn of the century. Furthermore, a much smaller labor force now is needed on the farm. In 1945, for example, 1 farm worker produced enough for himself and 14 other persons. Fifty years ago, one worker produced enough for himself and only seven others. With fewer farm workers producing larger quantities of farm products, many farm people have joined the labor force of industry.

More Pleasant Life

Technological change also has done much to make farm life more attractive. The drudgery of work has been lessened on the farm and in the home, leaving farm people freer to enjoy recreation and to participate in community and other activities. Higher incomes have made it possible for many farmers to buy automobiles, household conveniences, and other goods and services that enable them to belong to the same community groups as nonfarm people. Higher incomes also have permitted farmers to provide better schools, roads, and other community institutions and services than were available to their parents or grandparents.

Against these achievements, must be weighed some of the problems created by technological improvement on the farm. Although gains have been widespread, they have largely bypassed many farms and farmers. This is particularly true of small-scale units such as those concentrated in the Appalachian Highlands, the Ozark and Ouachita Mountains, the eastern part of the Cotton Belt and the cut-over areas of the Lake States. On many of these farms production is mainly for home use; on others, crops such as cotton or tobacco are produced largely with hand labor. Relatively few farmers in these areas have shared to any appreciable extent in the benefits of modern technology, on the farm or in the home. In addition, improvements in community institutions and services generally lag behind other parts of the country.

Not Unmixed Blessing

The rapid increase in agricultural production has not been an unmixed blessing. Except for the war emergencies output of many products has increased faster than demand. Surpluses became a major economic problem during the interwar years. Apparently they are reemerging now that the unusually strong demands of the war and postwar years are disappearing. Of course, not all of the surplus problem can be blamed on technological changes. But undoubtedly they have contributed much.

The unequal distribution of the benefits of technological advance in farming and the problems it has helped create raise such questions as: Under what conditions are the benefits retained by farmers or are passed on to other groups? What determines which farmers benefit and which do not?

The answers to these questions lie mainly in the extent to which a technological change lowers cost of production and increases output of farm products, and on the effect higher production has on prices farmers receive.

Output Usually Increases

Technological improvements sometimes reduce costs of production without causing a larger output. More often, an improvement which reduces costs also results in an expansion of output. Farmers who adopt improvements that do not increase farm output usually can hold all of the gains resulting from lower costs of production. The incomes of farmers who do not adopt these improvements are not affected adversely although they are not as well off as those who do.

When an improvement results in increased production as usually is the case, the outcome is less certain. Whether a farmer benefits from such an improvement may depend on the prices at which the market will absorb the larger output.

Depends on Demand

If the demand for a product expands as fast as an improvement increases total production, farmers are likely to hold much of the gain. Consumers also benefit because increased production prevents a rise in prices. For many products, however, demand expands slowly. An increase in supply resulting from rapid and widespread adoption of an improvement may lower prices so much that the gross return of farmers as a group declines more than their production costs. In other words, the lower prices times the larger quantities yield smaller cash receipts than did higher prices times the smaller quantities. In this case, most if not all of the benefits of an improvement are shifted from farmers to other groups. However, the general economy still may benefit because farm products are available at lower prices than before the improvement was made.

In any case, however, farmers who adopt improvements will hold whatever gain results until or unless prices of farm products are affected. Thus, farmers who adopt an improvement which results in increased production at a lower cost per unit always gain in the early period of its adoption. Farmers who do not make the change are not affected by the improvement until total production expands enough to cause prices to decline.

Reduction in costs of production have been greater and more widespread than generally is recognized. In many cases, these improvements have enabled farmers to reduce their *total production costs* at the same time they are increasing output. This has been particularly true when improvements have been adopted in combinations.

To illustrate such a combination, suppose that a Corn Belt farmer adopts mechanical power along with hybrid seed corn, commercial fertilizer, and more legumes in the rotation; all of which result in higher yields of corn and other crops. These, in turn, make more feed available for livestock and better feeding than can be combined with other improvements in livestock practices.

Production Up, Costs Down

As a result of this combination of improvements, the farm family is able to do all of the work with little or no hired labor. Investment and current operating expenses for power and machinery are little if any higher than when the farm was operated with animal power and considerable labor was hired to get the work done on time. Production per farm, per acre, and per worker are increased at the same time that operating expenses are being reduced.

Farmers who have lowered their *total production costs* at the same time that production has been increased are in an excellent position to retain much of the benefits resulting from their improvements. Prices would have to drop enough that total gross income would be lower than before the improvement was adopted to wipe out their gains. And the price declines resulting from technological changes are not likely to be that large.

As a result of cost-reducing and production-increasing technological improvements in agriculture, the number of workers needed on farms has been

constantly reduced. During 1945–48, an average of 26 percent fewer hired workers and 12 percent fewer family workers were employed on farms than in 1925–28. One result of this has been a gradual decline in the number of people on farms, even though the total population of the United States has increased. This means that the total income to agriculture is divided among fewer farm people. Even if total income had not risen, income per person would have been larger.

Looked at historically, the release of workers from agriculture has furnished the labor force for the development of our urban industry. This has helped provide the basis for our high level of living. The long-time benefits of such shifting perhaps can best be seen if we contrast the situation in this country with the areas of the world in which half or more of the working population is engaged in farming.

No Brakes Needed

To determine the short-run effects of an improvement which displaces workers from agriculture, however, we need to look at the immediate effects on employment. If the improvement displaces a large amount of hired labor, it makes a big difference whether it is introduced at a time when other employment is available, or whether it occurs during a period of widespread unemployment. If the displaced workers must be supported by public aid, the net gain from the improvement may be partly offset by the cost of work relief.

The economic effects of technological changes in farming during the past do not indicate that we should place any brakes on the development of more efficient farming in the future. Individual farmers who adopt cost-reducing combinations are likely to gain from them, both immediately and over a period of time, whether or not they result in increased output. Although the benefits of technology have been unequally distributed and serious problems have been created, the problems can be solved and the inequities minimized.

Beneficial Over Time

Over the long-run and taking the economy as a whole, technological developments have been beneficial and in the future must continue. Agriculture cannot afford to remain static in an ever-changing national economy. And science can be enlisted to serve all farm people more effectively. This would involve greater emphasis on research, educational, and other programs that will reduce total costs on farms, facilitate production shifts needed to restore and hold economic balance between production and market outlets, and improve farm living conditions both in the home and the community.

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Price-Cost Pincers Bear Down on Poultry Industry

THE PRICE-COST squeeze has borne down on poultrymen with a vengeance during the last 6 months.

The average price received by farmers for eggs nosedived 22.9 cents or 44 percent from September 1949 to February, compared with an average decline of 13 percent for the five preceding years. The drop in the chicken markets was almost as great with the February average 30 percent below the 1949 peak of 31 cents per pound reached last April.

Some of the costs of poultry and egg production have come down in the last 6 months, but not enough to cause much joy on the poultry farm. The United States poultry ration fed in February was worth an average of $3.35 per hundred pounds, only 18 cents lower than the highest point reached in 1949. Laying mash in February averaged $4.31 per hundred, only 27 cents below last year's peak. Baby chicks in February 1950 cost $14.90 per hundred, against $16.30 a year ago. Other production costs of poultrymen have changed little, and the same is true of living costs.

The tightening of the price-cost pincers has brought poultry producers the worst situation they have faced in several years. As far as the rest of 1950 is concerned, prospects that the pressure will ease to an important extent are not encouraging.

Costs to Stay Up

Costs are likely to give way only slightly the rest of the year. The poultrymen's feed bill, the major item in his total outlay, is expected to show little decline from current levels. The grain in the poultry ration is supported by Government programs which will prevent much of a decline, despite the large supplies on hand. Protein feed prices are high compared with feed grain prices. The large livestock population in the Nation together with the general tendency of producers to purchase and feed more adequately balanced rations than before the war will continue to support the demand for protein supplements.

Poultrymen have little reason for expecting an increase in consumer demand for eggs and poultry. Consumer income is likely to be slightly lower than in 1949. In addition, supplies of pork, a competing meat, are expected to be larger and prices lower than in 1949. This also will tend to prevent much increase in demand for poultry products this year.

Fewer Replacements

On the supply side, the best clue so far to 1950 is the February report that poultrymen intend to buy 12 percent fewer baby chicks than last year for flock replacement. Even if these intentions are carried out, poultry production will not be affected until after midyear. In addition the number of layers probably will decline less than 12 percent since poultrymen do not usually change the size of their laying flocks as sharply as they change the number of chickens they raise. Furthermore, the long-time trend toward an increase in the rate of lay per bird is likely to partly offset the reductions in the number of layers so far as the total number of eggs is concerned.

The prospect for seasonal changes in production during 1950 indicates that the percentage increase in price from the spring low to the fall peak will not be any larger than in the last few years when it was well below the long-time average. The long-time trend toward earlier seasonal recovery from the low summer levels of egg production probably means that output in August and September will exceed that of last year. In addition, the quantity of eggs coming out of storage in those months is likely to be much larger than in 1949.

Egg supplies this year will weigh heavily on the price-support program. The goal of the program is an average farm price of 37 cents per dozen for 1950. Since monthly average prices are likely to continue around 30 to 32 cents a dozen during most of the first half of 1950, support buying would have to be heavy later in the year in order for the average price to be 37 cents.

Chicken Supplies Ample

The outlook for chicken meat from the producers' standpoint is hardly any more favorable than that for eggs. Supplies of hens will be larger than last year since the number of potential layers in farm flocks on January 1 was 7 percent above a year earlier. Supplies of young farm chickens will be down if fewer chicks are raised, as indicated by reported intentions. Supplies of broilers from other than farm flocks probably will show little change from a year ago. Cold-storage stocks of all poultry meat, including turkey, at the beginning of 1950 were 82 percent above a year earlier. Since supplies of red meats are ample, the outlook does not indicate any reason to expect a marked change from present poultry prices.

With the outlook indicating that poultrymen will continue to operate under unfavorable price-cost relationships through 1950, the problem of adjustment becomes important. The poultry enterprise is highly flexible in the sense that the producer can increase or decrease production quickly. However, the opportunities for the specialized producer to shift to other enterprises are few. He lacks the buildings, land, equipment and usually the experience to shift quickly into hog raising, dairying, or some other enterprise.

Under such conditions, what can the specialized producer do? A common answer is "increase efficiency." This may not mean much to the skilled poultryman who is already getting 220 eggs per hen and otherwise operating efficiently. Furthermore, most producers have been doing what they could in that direction for years. For many producers through, the opportunities for increased efficiency are by no means exhausted. This is the time to look more carefully than usual for those other ways of cutting costs.

The individual poultryman cannot have much influence on prices at the feed store, but perhaps he can cut costs somewhat by selecting the best buys available. Perhaps more promising are the opportunities to make better use of fixed farm resources. Often, fairly simple changes in equipment, building arrangements and work methods will permit the family labor force to handle more layers, to handle the same number with less hired labor, to produce more poultry meat, or perhaps do more retail selling or other more intensive marketing.

Practices that take advantage of the seasonal swings in egg prices offer other opportunities to meet the price-cost squeeze. Early starting of chicks often can enable a producer to have more eggs when prices are seasonally high and to have more large eggs when premiums for size are highest. This practice can be combined with the use of temporary laying shelters or other methods to increase the number of layers at certain seasons. This year, however, these practices may not provide normal benefit because of the prospect that the seasonal recovery in egg prices will be less than usual.

Sideline Flocks Better Off

These seem to be the major opportunities open to specialized producers except for the rather drastic move of selling the entire flock and going out of business temporarily. This may be the best alternative for some of the less efficient producers, particularly if poultry meat prices are high enough to make liquidation attractive.

Owners of sideline flocks, who are scattered throughout the country, have more alternatives. Farmers whose flocks are only a sideline may find it profitable to divert some of the feed and labor to other livestock production. However, the smaller flocks are likely to weather the storm fairly well.

Edward Karpoff
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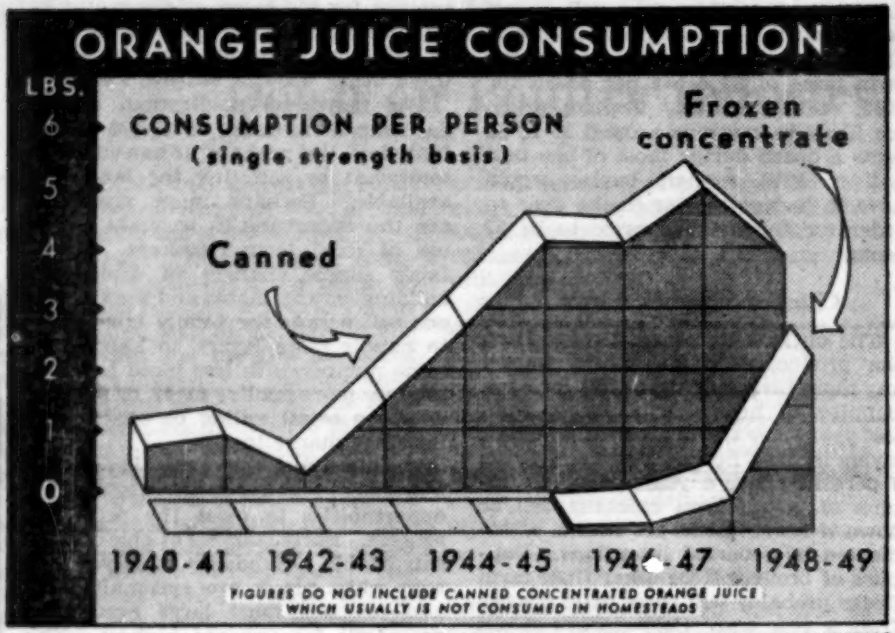

New Orange Product Rapidly Wins Place on Breakfast Menu

THE RECORD made by the processors of frozen concentrated orange juice since the end of the war can be matched by few other industries. In just 4 years, the new product has become a familiar item on the breakfast menus of millions of Americans and its production has become a major outlet for the Nation's orange crop.

Frozen concentrated orange juice was first manufactured on a commercial scale during the 1945–46 season. Output for the 12 months was 266,000 gallons and took only one-fifth of 1 percent of the United States orange crop.

Since then, production of the new product has increased by leaps and bounds. Output more than doubled in the next season, quadrupled in 1947–48, and then in 1948–49 jumped to five times the previous year's level. Output during that season amounted to 12 million gallons, not including small quantities of concentrated blended orange and grapefruit juice, and absorbed 10 million boxes of oranges or a tenth of the total crop.

If all the concentrate produced in 1948–49 had been piled in one place, it would have made a golden glacier 60 feet wide, 5 feet deep, and 1 mile long.

Since the product is about 4 times the strength of fresh orange juice, the 12 million gallons produced in 1948–49 was equal to about 48 million gallons of single-strength juice, or about 14 million cases of 24 No. 2 cans. In the same season, the pack of canned orange juice amounted to 19 million cases of 24 No. 2 cans and that of canned blended orange and grapefruit juice 11 million cases. In addition,

the equivalent of about 150,000 cases of frozen single-strength orange juice was produced in California and Arizona.

Production of the concentrate was confined to Florida exclusively during the first two seasons and the State still produces the bulk of the product marketed. In 1948–49, for example, Florida produced more than 10 million gallons and California and Arizona 2 million.

Quickly Accepted

During the 1945–46 and 1946–47 seasons when the possibilities for the new product were being explored, the frozen concentrate was distributed mainly through the hotel, restaurant and soda-fountain trades. The consumer response to the new product was so favorable that in 1947–48, considerable quantities were distributed through retail stores to household consumers. The product rapidly gained a following even though supplies of fresh oranges and canned orange juice were extremely large and were moving slowly to consumers at prices sharply lower than during wartime.

Consumption per person during the 1948–49 season was nearly 3 pounds, single-strength basis. In the same season, consumption of canned single-strength orange juice was about 4 pounds per person, that of all canned citrus combined about 10½ pounds. The increase in consumption of frozen orange concentrate over the previous season about offset the decrease in canned citrus juice.

A 4 to 1 Concentrate

The frozen concentrate is manufactured by a process developed by the Florida Citrus Commission and the United States Department of Agriculture. In making the product, fresh orange juice is passed through a low temperature, high vacuum evaporating system which removes enough water to reduce the juice to about one-sixth its original volume. This product is then mixed with about half as much fresh orange juice, giving a 4 to 1 concentrate. The fresh juice tends to restore the original fresh flavor.

The concentrate is then chilled to a slush, sealed in cans and frozen to zero or lower. It is stored at zero until sold. In preparing the concentrate for the table, it is mixed with three times as much cold water which brings the juice back to single strength. The flavor of the product is very similar to that of fresh orange juice.

Frozen concentrated orange juice has been sold in retail stores at prices competitive with both fresh oranges and canned orange juice. Last year, popular brands of the 6-ounce can sold at retail at prices ranging from 22 to 30 cents. This meant that the concentrate diluted to single-strength cost consumers a little over 1 cent per ounce. In other words, a glass of 4 ounces served for breakfast cost 4 to 5 cents. This is about in line with the cost of other fruit juices.

More Stores Carry It

As the frozen concentrate has grown in popularity, the number of stores selling the product has increased rapidly. A Nation-wide survey made by Industrial Surveys Co., Inc., for the United States Department of Agriculture shows that this increase was particularly rapid during 1949. In April of that year, only 17 percent of the stores surveyed carried the product. In August, the percentage was up to 24 and in November it was 31. In contrast, 84 percent of the stores carried canned orange juice in November 1949.

To meet the growing demand for frozen concentrated orange juice, several additional concentrating plants have been built in the last year and more new ones are under construction. In Florida, the expanded facilities are contributing to a doubling of output during the current season. A new high in consumption also is expected during 1949–50.

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Costs of Shipping Milk From Wisconsin to Memphis

LOCAL MILK supplies of many large cities in the United States, particularly in the South, have been short of requirements, either seasonally or year-round, during the last 10 years. As a result, milk has been hauled into southern markets over long distances. In one case, regular shipments were made from Minnesota to Florida.

The cost of bringing milk into one important southern market, Memphis, Tenn., has been studied by BAE and the Tennessee Agricultural Experiment Station as part of a broader study of milk distribution in that area. The study, made under the Research and Marketing Act, shows that nearly 4 million pounds of fresh whole milk were brought to Memphis from Wisconsin in 1948. This milk was brought in during January–March and October–December and made up about 3 percent of the year's total supply. It was procured for Memphis dealers by the Mid-South Milk Producers Association who furnished the data for this study.

The average cost of the milk, f. o. b. dealers plants in Memphis was $6.80 per hundred pounds. Of this, Wisconsin producers received an average of $4.57 per hundred. This price was based on the minimum price for class I milk under the Federal order for the Chicago market adjusted for differences in butterfat and location. Including a handling charge of 55 cents, the price f. o. b. Wisconsin plant was $5.12.

Hauled in Tank Trucks

The cost of hauling the milk from Wisconsin to Memphis, including the Federal transportation tax of 3 percent, averaged $1 42 per hundred. All of the milk was carried in tank trucks of 25 000 to 30,000 pounds capacity and was hauled an average of 668 miles. About one-third of the loads were delivered intact to larger dealers. The rest were divided among smaller dealers after being transferred from trucks to 10-gallon cans.

The cost of transferring milk from tank trucks to cans, storing it and then distributing it to smaller dealers averaged 7.5 cents per hundred for all milk delivered.

Waste as the result of loss of milk and shrinkage of butterfat was another significant item in handling milk shipped from Wisconsin to Memphis. In the study, complete data was obtained on shipments of 3,429,211 pounds of milk including 2,979,611 pounds of whole milk and 449,600 pounds of skim milk. Of this, the association disposed of 3,388,024 pounds, a loss of 41,187 pounds or 1.2 percent of the total. These losses averaged 5.8 cents per hundred pounds of all milk delivered.

Butterfat Losses

Shrinkage of butterfat amounted to 2,525 pounds or 2.4 percent of the total. Nearly half of the shrinkage was due to the loss of milk. The rest resulted from differences between the percentage of butterfat at the origin and the destination. Loss of butterfat averaged 3.5 cents per hundred pounds of whole milk.

Several other minor costs also entered into the total cost of the milk to Memphis dealers. These include: Salaries of employees of the association, 6.5 cents per hundred pounds of milk; telephone and telegraph charges, 1 cent; subsistence for tank-truck drivers who had to stay overnight in Memphis, 1.2 cents; stationary and printing, 0.1 cent.

Movement of milk between markets probably will never again be as large as it was during the last decade. As production of milk in fluid market areas has increased, the inter-market movement of milk has dwindled. However, prices of milk in areas where production is small or demand is strong probably always will hover near a level that will attract shipments from areas where output is larger.

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U. S. DEPARTMENT OF AGRICULTURE NEG. 47457-XX BUREAU OF AGRICULTURAL ECONOMICS

TWO-THIRDS of the amount that New York consumers paid for Virginia spinach in the 1948–49 season was absorbed in paying for various marketing services such as transportation, refrigeration, packing, wholesaling, and retailing, and one-third went to the farmer, according to a preliminary report by BAE.

The marketing costs, which included shippers' icing and packing expenses, freight or truck shipping charges, and expenses for wholesaling and retailing, amounted to $1.65 per bushel basket, leaving 83 cents a bushel or 4 cents a pound, gross, to the farmer for his spinach delivered at the packing-house door. The figures apply to spinach grown in the Norfolk area of Virginia and for which New York consumers paid an average of about $2.47 a bushel or 13.7 cents per pound.

The shipper or packing-house operator in Norfolk received about 17 cents a bushel for his services, 22 cents went for freight or truck shipping charges from Norfolk to New York City, and the remaining $1.25 per bushel went to wholesalers and retailers in New York City.

The study, financed with Research and Marketing Act funds, was made by the Production and Marketing Administration in cooperation with the Bureau of Agriculture Economics and growers and shippers in the Norfolk area.

The farmer's share of 83 cents a bushel was the total he received for raising the spinach, furnishing the baskets, and hauling the whole spinach (unclipped) to buyer's packing house from which it was shipped to New York. Farmers paid laborers an average of about 10 cents per bushel basket for cutting or harvesting the plants. Baskets cost growers another 21 cents each. And loading and hauling to the buyer's packing house added about 5 cents to the farmer's costs.

Spinach is handled by carlot receivers, jobbers, and retailers. Each of these marketing agencies buys in large lots ands sells in smaller lots. The report points out that this successive breaking down of the commodity into smaller lots and the handling required to carry on this work takes considerable labor and causes additional waste through deterioration, all of which adds to the margins and cost of the product.

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		Mar. 15, 1949	Jan. 15, 1950	Feb. 15, 1950	Mar. 15, 1950	Effective parity price Mar. 15, 1950 [2]
	Base period price 1910–14 [1]	January 1935–December 1939					
Basic commodities:							
Cotton (pound), cents	[3] 12.4	10.34	28.74	26.47	27.50	28.05	30.01
Wheat (bushel), dollars	[3] .884	.837	1.98	1.92	1.93	1.98	2.14
Rice (bushel), do	.891	.742	[4] 2.11	1.96	1.99	1.93	2.23
Corn (bushel), do	[3] .642	.691	1.18	1.15	1.16	1.19	1.55
Peanuts (pound), cents	[3] 4.8	3.55	10.5	10.5	10.6	10.5	11.6
Designated nonbasic commodities:							
Potatoes (pound), dollars	[5] 1.12	.717	1.74	1.36	1.33	1.32	[6] 1.68
Butterfat (pound), cents	27.7	29.1	63.4	62.5	63.1	62.4	69.2
Milk, wholesale (100 lb.), dollars	1.73	1.81	4.04	4.06	3.95	[7] 3.79	4.32
Wool (pound), cents	20.1	23.8	[4] 52.8	47.2	48.7	49.6	50.2
Other nonbasic commodities:							
Barley (bushel), dollars	[3] .619	.533	1.06	1.10	1.09	1.10	[5] 1.42
Cottonseed (ton), do	26.30	27.52	51.40	43.60	43.60	43.00	65.80
Flaxseed (bushel), do	1.71	1.69	[4] 5.54	3.64	3.59	3.56	4.28
Oats (bushel), do	[3] .399	.340	.700	.705	.706	.723	[5] .918
Rye (bushel), do	[3] .720	.554	1.18	1.25	1.19	1.21	[6] 1.65
Sorghum, grain (100 lb.), do	[3] 1.21	1.17	2.17	1.89	1.88	1.93	[6] 2.78
Soybeans (bushel), do	1.00	.954	2.12	2.11	2.12	2.25	2.50
Sweetpotatoes (bushel), do	.921	.807	2.54	2.15	2.21	2.22	2.30
Beef cattle (100 lb.), do	6.78	6.56	20.50	19.40	20.40	21.00	17.00
Chickens (pound), cents	11.4	14.9	[4] 30.3	20.3	21.8	23.8	28.5
Eggs (dozen), do	[3] 21.5	21.7	41.2	31.3	29.6	31.6	[5] 49.4
Hogs (100 lb.), dollars	7.52	8.38	20.00	15.10	16.60	16.10	18.80
Lambs (100 lb.), do	7.48	7.79	23.60	21.60	22.80	23.70	18.70
Veal calves (100 lb.), do	7.62	7.80	24.50	23.30	24.60	24.40	19.00
Oranges, on tree (box), do	[5] 2.29	1.11	1.53	1.81	2.54	2.69	[5] 3.44
Apples (bushel), do	1.04	.90	[4] 3.06	1.66	1.78	1.92	2.60
Hay, baled (ton), do	8.71	11.20	25.00	21.90	21.50	21.20	21.80

[1] Adjusted base period prices 1910–14, based on 120-month average January 1940–December 1949 unless otherwise noted.

[2] Parity prices are computed under the provisions of title III, subtitle A, section 301 (a) of the Agricultural Adjustment Act of 1938 as amended by the Agricultural Acts of 1948 and 1949.

[3] 60-month average, August 1909–July 1914. [4] Revised. [5] 10-season average 1919–28.

[6] Transitional parity, 95 percent of parity price computed under formula in use prior to Jan. 1, 1950.

[7] Preliminary.

(Continued from p. 4)

Wheat: Farmers are expected to plant about a one-eighth smaller acreage to spring wheat than last year. The 19,727,000 acres in prospect, however, are 9 percent more than the 1939–48 average.

The prospective spring crop plus the winter wheat already in the ground brings the total for all wheat to 72,750,000 acres, about 14 percent less than in 1949 but 10 percent above average. This year's total is slightly below the allotted acreage. With average yields, the crop would be 1,185 million bushels compared with 1,146 last year.

Oats and barley: Acreage of spring and fall planted oats will be near a record level, about 8 percent more than in 1949 and 12 percent above average according to farmers' intentions. If yields by States are average, 1.5 billion bushels will be harvested compared with 1.3 billion last year.

Farmers' plans point to a big increase in barley acreage. If the plans materialize, this season's acreage will amount to 13,879,000, 24 percent above last year's small acreage but still 6 percent below average.

Soybeans: Plans indicate a total of 13.5 million acres, 18 percent more than last year, 12 percent above average and the third largest on record. Much of the increase is expected to come from land diverted from corn and cotton.

Other crops: Compared with last year's acreages, farmers intend to plant 10 percent less rice, 23 percent less flaxseed, 24 percent more sorghums, 3 percent less tobacco, 27 percent more sugar beets, 1.3 percent more in cowpeas grown alone, 12 percent less peanuts grown alone, 12 percent less dry beans, 23 percent less dry field peas, 3.2 percent less potatoes, 10 percent more sweetpotatoes.

Economic Trends Affecting Agriculture

Year and month	Industrial production (1935–39=100) [1]	Total income of industrial workers (1935–39=100) [2]	Average earnings of factory workers per worker (1910–14=100)	Wholesale prices of all commodities (1910–14=100) [3]	Index numbers of prices paid by farmers (1910–14=100) [4]			Index numbers of prices received by farmers (1910–14=100) [4]			
					Commodities	Wage rates for hired farm labor [5]	Commodities, interest, taxes, and wage rates	Livestock and products			
								Dairy products	Poultry and eggs	Meat animals	All livestock
1910–14 average	58	50	100	100	100	100	100	100	100	100	100
1915–19 average	72	90	152	158	149	147	148	147	153	162	157
1920–24 average	75	122	221	160	159	181	168	159	163	121	140
1925–29 average	98	129	232	143	151	184	161	161	155	145	152
1930–34 average	74	78	179	107	117	121	124	105	94	83	91
1935–39 average	100	100	190	118	124	121	125	119	108	117	115
1940–44 average	192	296	315	139	148	211	152	169	143	166	162
1945 average	203	291	389	154	180	359	189	230	194	207	210
1946 average	170	276	382	177	197	387	207	267	197	248	241
1947 average	187	328	436	222	231	419	240	272	219	329	287
1948 average	192	354	472	241	280	442	259	300	235	361	314
1949 average	176	325	479	226	241	429	250	251	219	311	272
1949											
March	184	334	477	231	245	.....	255	254	215	327	281
April	179	327	469	229	244	430	254	241	220	324	276
May	174	322	472	227	244	.....	253	238	215	319	271
June	169	320	475	226	242	.....	252	233	212	323	271
July	161	315	476	224	240	429	250	237	213	316	269
August	170	323	477	223	238	.....	249	244	225	310	271
September	174	331	485	224	238	.....	248	251	236	319	279
October	166	307	482	222	237	434	246	258	230	301	271
November	173	313	475	221	236	.....	245	261	216	286	262
December	[6] 180	[6] 323	490	221	237	.....	246	261	194	280	255
1950											
January	[7] 183	322	491	221	238	429	249	254	158	286	249
February	.....	.....	.....	222	237	.....	248	250	155	306	257
March	.....	.....	.....	.....	239	.....	250	243	165	318	258

Year and month	Index numbers of prices received by farmers (1910–14=100) [4]								All crops and livestock	Parity ratio [8]
	Crops									
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil-bearing crops	Fruit	Truck crops	All crops		
1910–14 average	100	100	100	100	100	100	.....	100	100	100
1915–19 average	193	161	183	178	201	126	.....	171	164	111
1920–24 average	147	125	189	197	155	157	[9] 152	162	150	89
1925–29 average	141	118	169	150	135	146	145	143	148	92
1930–34 average	70	76	117	77	78	98	104	84	88	71
1935–39 average	94	95	172	87	113	95	95	99	107	86
1940–44 average	123	119	241	138	170	150	164	145	154	101
1945 average	172	161	360	178	228	244	207	203	206	109
1946 average	201	196	376	237	260	250	182	227	234	113
1947 average	270	249	374	272	363	212	226	263	275	115
1948 average	250	250	380	279	351	174	214	262	285	110
1949 average	219	170	398	245	242	199	201	223	249	100
1949										
March	226	176	403	242	261	207	235	232	258	101
April	229	177	403	251	256	225	196	234	256	101
May	229	174	403	252	245	239	194	235	253	100
June	217	168	404	253	232	235	155	225	249	99
July	209	171	404	253	219	217	168	221	246	98
August	205	165	400	246	241	181	170	214	244	98
September	211	166	393	250	227	160	188	212	247	100
October	213	161	396	241	229	180	174	210	242	98
November	215	157	369	233	230	172	213	210	237	97
December	219	168	394	223	225	174	196	210	233	95
1950										
January	218	170	382	222	228	185	261	219	235	94
February	219	171	389	231	228	186	203	215	237	96
March	224	174	389	236	230	193	168	215	237	95

[1] Federal Reserve Board: represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

[2] Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised January 1950. [3] Bureau of Labor Statistics.

[4] Revised January 1950. [5] Farm wage rates simple averages of quarterly data, seasonally adjusted.

[6] Revised. [7] Preliminary.

[8] Ratio of index of prices received to index of prices paid, interest, taxes, and wage rates. This parity ratio will not necessarily be identical to a weighted average percent of parity for all farm products, largely because parity prices for some products are on a transitional basis. [9] 1924 only.

Outlook Highlights

. . . APRIL 1950

Farmers' Prices Steady

Prices farmers receive and pay have been generally stable and are likely to continue so for a few months. With economic activity at a high level, demand for farm products is likely to continue near current levels.

Industrial production has recovered almost completely from the effects of the work stoppage in coal mining. Nonagricultural employment in February was the highest on record for the month. Consumer income, boosted by the veterans' insurance refunds, continues high. Retail sales in the first 2 months of 1950 were slightly above a year ago with automobile sales up slightly. Sales of food were about the same as in early 1949 but sales of clothing were down.

Despite the high level of employment, the number of unemployed continues to increase. This is largely due to the fact that our labor force is expanding.

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